REMARKS

The Office Action dated October 16, 2007, has been received and carefully noted. The above amendments to the drawings and claims, the substitute specification enclosed herewith, and the following remarks, are submitted as a full and complete response thereto.

By this response, claims 1, 12, 23, 25-26, and 35-36 have been amended, and claim 24 has been cancelled without prejudice or disclaimer, to more particularly point out and distinctly claim the subject matter of the invention. Figures 4 and 5 have been added. Accordingly, the Specification has been amended to introduce Figures 4 and 5. No new matter has been added. Support for the above amendments are provided in the Specification in at least paragraphs [0025]-[0031]. Accordingly, claims 1-23 and 25-36 are currently pending in the application, of which claims 1, 12, and 23 are independent claims. Applicant thanks the Examiner for indicating the allowability of claims 2-11 and 13-22.

In view of the above amendments and the following remarks, Applicant respectfully requests reconsideration and timely withdrawal of the pending drawing objections and the pending claim rejections for the reasons discussed below.

Drawing Objections

The Office Action objected to the drawings under 37 C.F.R. §1.83(a). Specifically, the Office Action alleged that the limitations recited in claims 23, 35, and 36

must be shown or the features cancelled from the claims. Applicant respectfully traverses the objections to the drawings, in part, for at least the following reasons.

Applicant respectfully submits that the limitations recited in claim 23 are illustrated in Figure 3. Specifically, Figure 3 illustrates an in path equipment 30 configured to receive a signal from a sender terminal 35; and a slip detector 31 configured to detect assumed octet slip in the signal, wherein the in path equipment 30 is further configured to transmit the signal to a receiver terminal 36.

Applicant has added new Figures 4 and 5 to illustrate the limitations recited in claims 35 and 36, respectively.

Therefore, Applicant respectfully requests withdrawal of the objections to the drawings illustrating the limitations recited in claims 23, 35, and 36, and respectfully submit that the drawings are in compliance with 37 C.F.R. §1.83(a).

Claim Rejections under 35 U.S.C. §112, Second Paragraph

The Office Action rejected claims 23-36 under 35 U.S.C. §112, second paragraph, as allegedly being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP §2172.01. Specifically, the Office Action alleged that claim 23 fails to recite a structural relationship between the limitations. Claims 24-36 depend from claim 23.

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Accordingly, claim 23 has been amended to more particularly point out and distinctly claim the subject matter of the present invention. Claim 24 has been cancelled without prejudice or disclaimer.

Therefore, Applicant respectfully requests withdrawal of the rejections of claims 23-36 under 35 U.S.C. §112, second paragraph, and respectfully submits that claim 23, and the claims that depend therefrom, are now in condition for allowance.

Claim Rejections under 35 U.S.C. §103(a)

The Office Action rejected claims 1, 12, 23, 24, and 36 under 35 U.S.C. §103(a) as allegedly unpatentable as obvious over Ghuman, *et al.* (U.S. Patent No. 6,081,570) ("Ghuman") in view of Delfs, *et al.* (U.S. Patent Publication No. 2001/0019958) ("Delfs"). The Office Action took the position that Ghuman discloses the limitations of claims 1, 12, and 23, except for detecting octet slips in pulse code modulation. However, the Office Action also took the position that the occurrences of octet slips in pulse-code modulation streams are well knowin in the art and cited Delfs in support of the position. This rejection is traversed as follows.

Claim 1, upon which claims 2-11 depend, is generally directed to a method for detecting an assumed octet slip in an inband signalling block in pulse code modulation. The method includes searching a first error at a position bit k1 starting from an end of a searching block that includes a set of bits. The method also includes counting a number of bit errors starting from a corresponding position k1 in a slipped block of another set of

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bits, where each bit is shifted relatively to a corresponding bit of the searching block. The method further includes detecting octet slip by analyzing the error bits.

Claim 12, upon which claims 13-22 depend, is generally directed to a device for detecting an assumed octet slip in an inband signalling block in pulse code modulation that comprising a slip detector. The device includes a searcher arranged to search a first error bit at a position k1 starting from an end of a searching block, the searching block comprising a set of bits. The device also includes a counter arranged to count a number of bit errors starting from a corresponding position k1 in a slipped block of another set of bits, where each bit is shifted relatively to a corresponding bit of the searching block. The device further includes a detector arranged to detect the octet slip by analyzing error bits.

Claim 23, upon which claims 25-36 depend, is generally directed to a system for detecting an assumed octet slip in an inband signalling block in pulse code modulation. The system includes a sender terminal transmit a signal, a receiver terminal, an in path equipment, and a slip detector that is arranged to detect assumed octet slip. The slip detector includes a searcher arranged to search a first error bit at a position k1 starting from an end of a searching block, the searching block comprising a set of bits. The slip detector also includes a counter arranged to count a number of bit errors starting from a corresponding position k1 in a slipped block, the slipped block being another set of bits where each bit is shifted relatively to a corresponding bit of the searching block. The slip

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detector further includes a detector arranged to detect the octet slip by analyzing error bits.

Each of the foregoing claims recite limitations that are not disclose or suggested by a combination of Ghuman and Delfs.

Ghuman generally discloses a parallel integrated frame synchronizer chip. In Ghuman, a parallel integrated frame synchronizer includes a sequential pipeline process where serial data, such as weather satellite data, enters the synchronizer via a front-end subsystem and passes to a weather satellite data processing subsystem. Depending upon the mode of operation of the synchronizer, data from the processing subsystem passes through a window subsystem, then to a data alignment subsystem and then to a decoding subsystem. Data from the processing subsystem and decoding subsystem is sent to an output subsystem where it is output via an appropriate port. In this manner, Ghuman achieves parallel integrated frame synchronization.

Delfs generally discloses tone signaling with Tandem Free Operation (TFO) links. In Delfs, a tone signal is detected and coded into bits of a TFO frame for sending the signal through a GSM specific DCME equipment (GCME) link. This includes setting bits to mark the frame as containing tone signaling information and setting bits to identify the detected tone signal.

However, a combination of Ghuman and Delfs fails to disclose or suggest, at least, "searching a first error bit at a position k1 starting from an end of a searching

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block...[and] counting a number of bit errors starting from a corresponding position k1 in a slipped block," as recited in claim 1, and as analogously recited in claims 9 and 13.

Instead, Ghuman is directed to locating digital sync marker patters (ASMs) in a serial data stream. Ghuman does this by looking for successive single bytes of an 8-bit data byte of the data stream and then comparing bits with corresponding bits of an expected sync marker data byte. Indeed, in Ghuman, the data stream is checked bit by bit against sync marker data. Also, in order to check the data stream for synchronization with the ASMs, any errors resulting from the comparisons between bits of successive single bytes of the data stream and corresponding bits of an expected sync marker data byte are added together in pipeline adders (PIPEADDs 136n of Figure 9). Therefore, Ghuman provides for looking at successive bytes and determining the status thereof. Distinctly, the claimed invention provides that a search is carried out on a first entity and then a counting is carried out on a second entity, and only in relation to errors occurring from a particular position from an end of the second entity. These features are not disclosed in Ghuman in which single entities are repeatedly checked, and their errors counted, and then further determinations are made.

Similarly, Delfs fails to remedy the deficiencies of Ghuman by not disclosing the foregoing limitations. Instead, Delfs is directed to tone signaling with TFO communication links as discussed above, without reference to or disclosure of the limitations in question. Accordingly, a combination of Ghuman and Delfs fails to discloses or suggest, at least, "searching a first error bit at a position k1 starting from an

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end of a searching block...[and] counting a number of bit errors starting from a corresponding position k1 in a slipped block," as recited in claim 1, and as analogously recited in claims 9 and 13.

Additionally, the Office Action failed to make a *prima facie* case for obviousness under §103(a) because one skilled in the art would not be motivated to combine Ghuman and Delfs to arrive at the claimed invention. As noted above, Ghuman is directed to synchronization chip sets, while Delfs is directed to tone signalling. Given the distinct foci of these references and the claimed invention, it stands to reason that one skilled in the art would not be motivated or inclined in any way to combine Ghuman and Delfs in a manner that naturally achieves the present invention. As such, Applicants respectfully assert that the combination of Ghuman and Delfs is improperly based on hindsight. Therefore, Applicants respectfully request that the §103(a) rejection be withdrawn for this reason as well.

In accordance with the above, Applicants respectfully request that the §103(a) rejection of claims 1, 12, and 23 be withdrawn. Additionally, Applicants respectfully request that the §103(a) rejection of claims 35 and 36 be withdrawn for their dependency from claims 23 and for the patentable limitations recited therein.

Allowable Subject Matter

The Office Action objected to claims 2-11 and 13-22 as allegedly being dependent upon a rejected base claim, but would be allowable if rewritten in independent form

including all of the limitations of the base claim and any intervening claims. As shown above, claims 1 and 12 are allowable. Therefore, Applicant respectfully requests that the objection to claims 2-11 and 13-22 be withdrawn for at least their dependence from allowable claims 1 and 12.

The foregoing comments made with respect to the positions presented in the Office Action are not to be construed as acquiescence with other positions presented in the Office Action that have not been explicitly contested. Accordingly, the above arguments for patentability of a claim should not be construed as implying that there are not other valid reasons for patentability of the claim or other claims. Additionally, the Applicant does not acquiesce that the cited art anticipates or renders obvious any of the claims as previously presented, and reserve the right to pursue any of the previously presented claims in a subsequent application.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

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In the event this paper is not being timely filed, Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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Enclosure: Substitute Specification: Marked-Up Copy
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              New Figures 4 and 5
              Petition for Extension of Time
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